

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended): A park brake mechanism for braking a drive line that transmits power to the wheels of a motor vehicle, comprising:

~~a transfer case having an input, and an output adapted for a drive connection to at least one wheel;~~

an epicyclic gearset driveably connected to the input and the output, adapted to produce alternately a high range of output speed and a low range of output speed;

a coupler including a selector moveable alternately between a first position where the gearset produces the high range, and a second position where the gearset produces the low range;

a park gear driveably connected to the input; ~~and~~

a pawl supported for releasable engagement with the park gear and preventing rotation of the park gear due to such engagement;

a gear selector moveable among positions representing operating ranges of a transmission, the positions including a park position; and

a connector attached to the gear selector and the pawl, adapted to transmit movement of the gear selector to the pawl, the pawl engaging the park gear and preventing rotation of the park gear in response to movement of the gear selector to the park position.

2. (Canceled)

3. (Canceled)

4. (Currently Amended): The mechanism of claim 1, wherein further comprising:

~~a gear selector moveable among positions representing operating ranges of the transmission, the positions including a park position;~~

~~a connector attached to the gear selector and the pawl, adapted to transmit movement of the gear selector to the pawl, the pawl engaging the park gear and preventing rotation of the park gear in response to movement of the gear selector to the park position;~~ the connector further includes including a detent lever connected to the gear selector supported for displacement in response to movement of the gear selector; and the mechanism further comprises; and

a park rod connected to the detent lever for movement therewith, including a cam for forcing the pawl into engagement with the park gear when the gear selector is in the park position and allowing disengagement of the pawl from the park gear.

5. (Currently Amended): The drive mechanism of claim 1 4, wherein:

the park gear further comprises teeth distributed around a periphery of the park gear, each tooth having a crown and a radial face, and having a space between each tooth; and

the pawl further comprises a projection adapted ~~to enter a space and~~ to engage a the radial face of a tooth on the park gear.

6. (Original): The drive mechanism of claim 5, further comprising:

an abutment having a surface for guiding the cam toward the pawl; and

a ratchet spring carried on the park rod, biasing the cam toward the pawl, and permitting retraction of the cam from the pawl in opposition to movement of the park rod toward the pawl due to contact of the projection and the crown of a tooth on the park gear.

7. (Currently Amended): A park mechanism for braking the wheels of a motor vehicle, comprising:

a ~~transfer case~~ casing fixed against rotation, including a power input and an output ~~adapted for a drive connection to at least one wheel;~~

an epicyclic gearset driveably connected to the input and the output, adapted to produce alternately a high range of output speed and a low range of output speed;

a coupler continually driveably connected to a first component of the gearset, and adapted for alternate drive connections to a second component of the gearset and to the ~~transfer case~~ casing, including a selector moveable alternately between a first position where the gearset produces the high range, and a second position where the gearset produces the low range;

a park gear driveably connected to the input; ~~and~~

a pawl supported for releasable engagement with the park gear and preventing rotation of the park gear due to such engagement- ;

a gear selector moveable among positions representing operating ranges of a transmission, the positions including a park position; and

a connector attached to the gear selector and the pawl, adapted to transmit movement of the gear selector to the pawl, the pawl engaging the park gear and preventing rotation of the park gear in response to movement of the gear selector to the park position.

8. (Canceled)

9. (Canceled)

10. (Currently Amended): The park mechanism of claim 7, wherein further comprising:

~~a gear selector moveable among positions representing operating ranges of the transmission, the positions including a park position;~~

~~a multiple speed transmission including a transmission case, the park gear being located in the transmission case;~~

~~a connector attached to the gear selector and the pawl, adapted to transmit movement of the gear selector to the pawl, the pawl engaging the park gear and preventing rotation of the park gear in response to movement of the gear selector to the park position;~~ the connector further including comprises a detent lever connected to the gear selector, supported on the casing transmission case for rotary movement in response to movement of the gear selector; and

a park rod connected to the detent lever for movement therewith, including a cam for forcing the pawl into engagement with the park gear when the gear selector is in the park position and allowing disengagement of the pawl from the park gear whereby the output is free to rotate.

11. (Original): The park mechanism of claim 10, wherein:

the park gear further comprises teeth distributed around a periphery of the park gear, each tooth having a crown and a radial face, and having a space between each tooth; and

the pawl further comprises a projection adapted to enter a space and to engage a radial face of a tooth on the park gear.

12. (Currently Amended): The park mechanism of claim 11, further comprising:

an abutment fixed to the transmission case, having a surface for guiding the cam toward the pawl; and

a ratchet spring carried on the park rod, biasing the cam toward the pawl, and permitting retraction of the cam from the pawl in opposition to movement of the park rod toward the pawl due to contact of the projection and the crown of a tooth on the park gear;

a park gear driveably connected to the input;

a gear selector moveable among positions including a park position; and

a pawl supported for releasable engagement with the park gear and preventing rotation of the park gear due to such engagement.

13. (Currently Amended): An integrated transfer case and transmission assembly for transmitting power to the wheels of a motor vehicle and for braking the vehicle, comprising:

a transfer first case fixed against rotation, having a first opening, including an input and an output;

~~a transmission including a transmission~~ second case secured to the ~~transfer first~~ case, having a second opening aligned with the first opening, including an ~~a transmission~~ output driveably connected to the input through the first and second openings;

~~an output~~;

a sun gear driveably connected to the input;

a carrier driveably connected to the output of the first case;

a ring gear;

a set of planet pinions rotatably supporting on the carrier in meshing engagement with the sun gear and ring gear;

a coupler driveably connected to the ring gear, including a selector moveable alternately between a first position where the coupler completes a drive connection between the ~~transfer~~ first case and ring gear, and a second position where the coupler mutually driveably connects the ring gear and one of the group consisting of the sun gear and carrier;

a park gear driveably connected to the input; and

a pawl supported for releasable engagement with the park gear and preventing rotation of the park gear due to such engagement; ;

a gear selector moveable among positions representing operating ranges of a transmission, the positions including a park position; and

a connector attached to the gear selector and the pawl, adapted to transmit movement of the gear selector to the pawl, the pawl engaging the park gear and preventing rotation of the park gear in response to movement of the gear selector to the park position.

14. (Canceled)

15. (Currently Amended): The assembly of claim 13, wherein the connector further comprises;

a detent lever connected to the gear selector, supported on the ~~transmission~~ second case for rotary movement in response to movement of the gear selector; and

a park rod connected to the detent lever for movement therewith, including a cam for forcing the pawl into engagement with the park gear when the gear selector is in the park position and allowing disengagement of the pawl from the park gear whereby the output is free to rotate.

16. (Currently Amended): The assembly of claim 15, wherein:
the park gear further comprises teeth distributed around a periphery of the park gear, each tooth having a crown and a radial face, and having a space between each tooth;
and
the pawl further comprises a projection adapted to enter a space and to engage ~~a~~ the radial face of a tooth on the park gear.

17. (Currently Amended): The assembly of claim 16, further comprising:
an abutment fixed to the ~~transmission~~ second case, having a surface for guiding the cam toward the pawl; and
a ratchet spring carried on the park rod, biasing the cam toward the pawl, and permitting retraction of the cam from the pawl in opposition to movement of the park rod toward the pawl due to contact of the projection and the crown of a tooth on the park gear.